

### REMARKS

Claims 1-2, 4-7, 10, 13-16, 18-22, 24, 27-31, 35, 40-47, 49-61, 63-86, 88-150 were previously pending in this application. By this amendment, Applicant is canceling claims 1, 90-101, 104-107, 109-116, 121, 138-142, 146 and 147 without prejudice or disclaimer. Claims 4, 5, 102, 103, 108, 117-120 and 143-145 have been amended herein. New claims 151 and 152 have been added. As a result claims 2, 4-7, 10, 13-16, 18-22, 24, 27-31, 35, 40-47, 49-61, 63-86, 88, 89, 102, 103, 108, 117-120, 122-137, 143-145 and 148-152 are pending for examination with claims 2, 15, 30, 68 and 151 being independent claims. No new matter has been added. The application as presented is believed to be in condition for allowance.

### Priority Claim

The Examiner asserts that the “disclosure of the prior-filed applications, Application No. 08/932,190 and 09/382,969, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. § 112 for one or more claims of the application.” The Examiner therefore concludes that “the current application’s effective filing date is the date of the provisional application 60/235,796, filed 9-27-2000.” Applicant respectfully disagrees.

The priority date to which claims of a continuation-in-part application are entitled to should be evaluated on a claim by claim basis. The fact that the prior-filed applications, namely Application No. 08/932,190 and 09/382,969, may not provide support for “one or more” claims of the present application, does not mean that the entire application is not entitled to the benefit of the filing date of these earlier applications. Any claims directed to subject matter supported by the parent application(s), are entitled to the earlier filing date.

### Rejections Under 35 U.S.C. §102

Claims 1, 2, 5-7, 10, 13-16, 18-22, 24, 27-31, 35, 40-47, 49-61, 63-81, 83-86 and 88-150 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,370,475 to Breed et al. (hereinafter Breed).

Claims 1, 90-101, 104-107, 109-116, 121, 138-142, 146 and 147 have been canceled without prejudice or disclaimer. Therefore, the rejection is moot with respect to these claims.

Breed is directed to a system and method for preventing vehicle accidents. Breed discloses that vehicles near each other can communicate their position and/or velocity to one

another, and can also relay hazard, accident or other information from one vehicle to another. Breed further discloses that the vehicles can be equipped with a display that allows a user to view information such as maps, traffic, weather information, etc. Based on this, or other, information, Breed discloses that appropriate action, e.g., reducing speed, changing direction, etc., may be taken.

Applicant's independent claim 2 recites, *inter alia*, a "method of providing information to a second passenger vehicle from a source to create an information network, the method comprising steps of...re-transmitting the information signal with the first transmitter/receiver unit to an additional transmitter/receiver unit; receiving the information signal with the additional transmitter/receiver unit; re-transmitting the information signal with the additional transmitter/receiver unit to a receiver located on the second passenger vehicle; and storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network."

The Examiner states that "the feature of storing the information would appear to be an inherent feature of Breed since a vehicle that has been turned off and thus disconnected temporarily...would expect the information...when it is reconnected." Applicant respectfully disagrees and traverses this rejection. The test for inherency has been defined to require the inherent feature to be "necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." See MPEP § 2112 where it is stated: "the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic...Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." The feature of storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network is not inherent in Breed because it is not necessarily present in the disclosure. Contrary to the Examiner's suggestion, there is no indication in Breed's disclosure that a disconnected vehicle may require previously stored data when it is reconnected. Rather, it appears from Breed's disclosure that when a vehicle is "reconnected" it may simply again begin receiving current information in the same manner as all the other vehicles. There is no mention nor suggestion of

storing data to provide to the reconnected vehicle, and this is certainly not a required feature of Breed's system. Therefore, the test for inherency is not met in this case. Accordingly, because Breed does not disclose or suggest at least one element of Applicant's claim 2, the claim is not anticipated by Breed, and withdrawal of the rejection of claim 2 is respectfully requested.

Applicant's independent claim 15 recites, *inter alia*, "a system that provides information to and from a second passenger vehicle, comprising...a first transmitter/receiver unit located on a first passenger vehicle that is located on a pathway within a signal coverage area of the information source, that receives the information signal and that re-transmits the information signal" and "a directional multibeam antenna, coupled to the first transmitter/receiver unit, that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway." Breed does not disclose or suggest such a system including a directional multibeam antenna as is recited in Applicant's claim 15. Breed discloses that vehicles can transmit their positions to "all other vehicles within a certain potential danger zone" or to "surrounding vehicles." Breed discusses the use of lasers and radar for vehicle communication, and specifically discloses the use of either a rotating antenna (e.g., an infrared rotating antenna) such that vehicle "transmits at all angles but receives at only one angle at a time," or short distance radio communication. Thus, Breed discloses transmitting the signal omnidirectionally. Breed also mentions in the background section some prior art systems using directional laser or radar beams for accident avoidance, but does not disclose or suggest that these systems are used to transmit information signals from one vehicle to another to another, as is recited in Applicant's claim. Breed never mentions or suggests, in the detailed description or in the background, using a directional multibeam antenna adapted to transmit the information signal in a plurality of directions, which is a subset of all directions, at least one of the plurality of directions being along the pathway on which the vehicle is located, as is recited in Applicant's independent claim 15. Accordingly, for at least this reason, claim 15 is not anticipated by Breed, and withdrawal of the rejection of claim 15 is respectfully requested.

Applicant's independent claim 30 recites, *inter alia*, a method of providing information to passenger vehicles, comprising steps of "repeating the steps of receiving and re-transmitting the information signal" and "wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and wherein the step of re-transmitting the information signal with the

first transmitter/receiver unit does not include re-transmitting the first portion of information.” Similarly, Applicant’s independent claim 68 recites a system that provides information to and from passenger vehicles, “wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and wherein the information signal re-transmitted from the first passenger vehicle does not include the first portion of information.” The Examiner contends that “it is inherent that control data that is only intended for a particular vehicle is not retransmitted.” Applicant respectfully disagrees.

Firstly, Breed does not disclose or suggest that an information signal sent to the first transmitter/receive unit (i.e., first vehicle) contains “control data that is only intended for a particular vehicle.” Breed discloses that each vehicle can obtain its own positional information from GPS satellites and other sources, but the vehicle does not relay only a portion of this information on to other vehicles. Rather, a vehicle obtains information from, for example, GPS satellites, and calculates its position. It may then send this calculated position to surrounding vehicles. This action is unlike Applicant’s claimed relaying methodology, where a vehicle receives a signal and passes that signal on to another vehicle, less some portion of the information contained in the signal that was only meant for the first vehicle. Breed does mention relaying a signal from one vehicle to another, specifically Breed discloses “that when a truck, for example, blocks another stalled vehicle, that the information from the stalled vehicle be transmitted via the truck to a following vehicle.” However, in this context, Breed does not disclose or suggest that the truck may retain a portion of the information and relay on the signal without that portion of the information, as is recited in Applicant’s claim. As discussed above, to establish inherency it must be proved that the missing feature is a necessary element of the disclosure and would be so recognized by those skilled in the art. This is certainly not the case here, as it is not necessary that the information signal being relayed “includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and wherein the step of re-transmitting the information signal with the first transmitter/receiver unit does not include re-transmitting the first portion of information,” or “wherein the information signal re-transmitted from the first passenger vehicle does not include the first portion of information,” as is recited in Applicant’s claims. Therefore, for at least these reasons, Applicant’s claims 30 and 68 are patentable over the art of record and

withdrawal of the rejection of claims 30 and 68 is respectfully requested.

Each of dependent claims 4-7, 10, 13, 14, 16, 18-22, 24, 27-29, 31, 35, 40-47, 49-61, 63-67, 69-81, 83-86, 88, 89, 122-137, and 148-150 depend from one of independent claims 2, 15, 30 and 68 and is therefore allowable for at least the same reasons as discussed for its respective base claim. In addition, several of the dependent claims recites features that independently distinguish over the art of record and provide additional grounds for allowance.

For example, dependent claims 13, 43 and 79 recite monitoring the passenger vehicles and information signals along pathways with a pathway station. Although Breed discloses that a vehicle may have an internal control system that may process incoming information signals and control or partially control vehicle response to received information, Breed does not disclose or suggest a pathway station that monitors many vehicles along the pathways on which the vehicles are located and also monitors the information signals relayed between the vehicles. Dependent claims 124, 126, 132 and 136 further specify that the pathway stations may send information signals to the vehicles and receive information signals from the vehicles. This is not disclosed or suggested by Breed. Dependent claims 44, 57, 67 and 80 recite an additional pathway station that is adapted to assume control of (e.g., monitoring of and/or communicating with) at least some of the passenger vehicles to prevent overloading of the first pathway station. This feature is also not disclosed or suggested by Breed. In addition, dependent claims 29 and 81 recite a pathway control station which controls communication between the pathway station(s) and an existing network (e.g., a phone network, the Internet, etc.). Breed is completely silent with regard to such a pathway control station as Breed discloses simply that the vehicles may communicate with one another and with information sources, e.g., GPS satellites, but never mentions a pathway station or pathway control station such as is claimed in Applicant's claims. Furthermore, dependent claims 127 and 137 specify that the pathway control station stores data when one passenger vehicle becomes disconnected from the information network so that the information can be provided when the one passenger vehicle is reconnected to the information network. As discussed above, Breed does not disclose or suggest storing data for this purpose, and certainly does not disclose or suggest that the storing is accomplished by a pathway control station. For at least these reasons, dependent claims 13, 29, 43, 44, 57, 67, 79-81, 124, 126, 127, 132, 136 and 137 are further patentable over the art of record.

Dependent claims 122, 128 and 130 specify that the information signal may be

transmitted at one frequency and re-transmitted at another frequency. In other words, the signals may be relayed using different frequencies for transmission at different stages in the relay chain. This feature is not disclosed or suggested by Breed who makes no mention at all of frequency of transmission in the context of vehicle-to-vehicle communications. In addition, dependent claims 133 and 134 specify that the multibeam antenna can transmit the information signal in one direction at one frequency and in another direction at another frequency. As discussed above, Breed does not even disclose a multibeam antenna at all, and certainly does not disclose or suggest using the multibeam antenna to transmit the information signal in different directions at different frequencies. Therefore, for at least these reasons, dependent claims 122, 128, 130, 133 and 134 are further patentable over the art of record.

For the reasons discussed above, each of dependent claims 4-7, 10, 13, 14, 16, 18-22, 24, 27-29, 31, 35, 40-47, 49-61, 63-67, 69-81, 83-86, 88, 89, 122-137, and 148-150, which depend from one of independent claims 2, 15, 30 and 68, is patentable over the art of record. According, withdrawal of the rejection of these claims is respectfully requested.

#### Rejections Under 35 U.S.C. §103

Claim 82 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Breed. Applicant respectfully traverses this rejection. Claim 82 depends from independent claim 68. As discussed above, claim 68 is not anticipated nor rendered obvious by Breed. Therefore, claim 82 is patentable for at least the same reasons as discussed for claim 68, and withdrawal of the rejection of claim 82 is respectfully requested.

#### Newly Added Claims

Applicant has added new independent claim 151 and new dependent claim 152 to further define Applicant's contribution to the art. Dependent claims 102, 103, 108, 117-120 and 143-145 have been amended to depend from new independent claim 151. The new claims are supported by the specification as filed and no new matter has been added.

New claim 151 recites, *inter alia*, a vehicular communication network comprising "a plurality of passenger vehicles located on vehicular pathways and being adapted to transmit and receive signals to and from one another; and a pathway station adapted to monitor the plurality of passenger vehicles and signals along the vehicular pathways." As discussed above, Breed does

not disclose or suggest a pathway station that monitors the vehicles and signals along pathways on which the vehicles are located. Therefore, for at least this reason, new independent claim 151 is patentable over the art of record and is believed to be in condition for allowance.

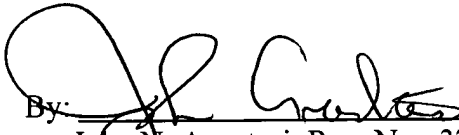
Each of dependent claims 102, 103, 108, 117-120, 143-145 and 152 depends from claim 151 and is allowable for at least the same reasons as discussed for claim 151.

### CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,  
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Docket No.: A0602-7002

Date: January 30, 2006